

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Schottland, et al.	
Application No.: 10/063,792	
Filed: 5/13/2002	Group Art Unit: 1772
Title: Plastics articles such as bottles with visual effect	Examiner: Marc A. Patterson
Attorney Docket No.: GEPL.P-051	Confirmation No.: 1633

**REPLY BRIEF FOR APPELLANT**

This Reply Brief is filed in support of Applicants' Appeal from the final rejection mailed June 15, 2006 and in response to the Examiner's Answer mailed April 6, 2007.

It is noted that the Examiner's Answer is missing a page numbered 10. However, as Page 9 ends with a signature and Page 11 contains only signatures it is believed that nothing substantive is missing.

The bottles of the present invention have the unusual visual effect that arises from the emission of luminescent light from the edges of graphic image. This is not merely a colored product since the luminescence predominates at the edges of the images as opposed to the bottle as whole. The Pollard reference relied on by the Examiner teaches making colored products, not products that have edge luminescence. Thus, while a person may have considered using the materials of Pollard as colorants in the relief structures of Brown, they would not have realized the full impact of using photoluminescent materials (which is only one class of the pigments described by Pollard).

In the Examiner's Answer, Page 8, the Examiner makes the statement

Pollard goes on to say that phosphorescent, luminescent, fluorescent, metallescent and pearlescent materials fit within the term 'pigment'. It is not clear how the material of claim 2 must be a dye, based on Pollard's definition that such material

is a pigment; it therefore appears that, based on the two definitions, the terms 'dye' and 'pigment' can be used interchangeably."

This argument is totally at odds with the Pollard reference. Pollard states that the distinction between pigments and dyes is their solubility and their ability to refract light. Pigments are insoluble and refract light. In contrast, dyes are soluble and absorb but do not refract light. (Pollard, Col. 6, lines 49-53.) The reference to dyes **only** absorbing light does not preclude photoluminescence but rather reflects that dyes do not refract light. Within either of these classes of compounds (pigments or dyes), some materials may be photoluminescent (that is they absorb light, and re-emit it as fluorescence or phosphorescence). This does not make pigments and dyes equal or interchangeable as the Examiner asserts.


The Pollard reference relates only to pigments, since the material must be in particle form. The Examiner has offered no reasons why this would extend to a dye as recited in numerous claims.

The Examiner also belittles the very low levels of materials that are recited in the claims, saying that these levels are obvious. However, the references refer to obtaining colored products. As person of skill in the art are well aware, the amount of color a material produces is a function efficiency of light absorption as a given visible wavelength, the concentration of the material and the path length through which the light passes. Reducing the amount of material by 3 orders of magnitude could render an ordinarily colored material essentially colorless, and would also significantly reduce any effect of light refraction from a pigment. Nothing in Pollard says to use a material simply because it is fluorescent (it would also be colored and refractive) and therefore there is no reason from the art, or the common sense of an ordinary artisan to make such a dramatic change in the amount of materials.

The Examiner also continues to argue that xanthenes (one of the dyes recited in claim 9, for example) is disclosed in Pollard. (Page 9) This is an assertion of inherent disclosure, because there is no explicit mention in Pollard of a xanthene, and it is based on the Examiner's apparent confusion over the difference between pigments and dyes. Xanthenes are not pigments. They are soluble in polycarbonate.

In view of the foregoing, and the arguments set forth in the Brief for Appellant, Applicants submit that the rejections in this case are in error and should be reversed. Such action is respectfully urged.

Respectfully submitted,

A handwritten signature in cursive script that reads "Marina T. Larson". The signature is written in black ink and is positioned above a horizontal line.

Marina T. Larson Ph.D.  
PTO Reg. No. 32,038  
Attorney for Applicant  
(970) 262 1800